

PROCEEDINGS OF THE SIXTEENTH ANNUAL MEETING
ENTOMOLOGICAL SOCIETY OF AMERICA.

Toronto, Ontario, December 27 and 28, 1921.

The opening session of the Sixteenth Annual Meeting was called to order at 10:30 A. M., December 27, 1921, in Room 32 of the Engineering Building of the University of Toronto, by the President, Dr. J. M. Aldrich. The attendance was about 50, increasing to 120 during the session.

The following papers were presented:

A Study of the Wax-secreting Glands of *Pseudococcus citri*. ROBERT MATHESON, Cornell University.

The Segmental Unit of the Insectean Tracheal System. CLARENCE H. KENNEDY, Ohio State University.

The Wing Venation of the Coleoptera. WILLIAM T. M. FORBES, Cornell University.

On the Ovipositor of Certain Anthomyian Genera. H. C. HUCKETT, Cornell University.

Indexing Homopterous Literature. Z. P. METCALF, North Carolina State College.

The Reputed Vesicating Properties of the Granary Weevil. WM. A. RILEY and FLORENCE DEFIEL, University of Minnesota.

The Puss Caterpillar (*Megalopyge opercularis*) and the Effects of Its Stings on Man. F. C. BISHOPP, United States Bureau of Entomology.

A Case of Serious Injury by the Bite of the House Centipede. C. L. METCALF, University of Illinois.

Some Cases of Subcutaneous and Intestinal Myiasis. E. M. WALKER, University of Toronto.

President Aldrich appointed the following Committees:

Auditing Committee: S. J. HUNTER, C. H. TURNER, NORMAN CRIDDLE.

Committee on Resolutions: E. M. DUPORTE, H. C. HUCKETT, W. P. FLINT.

Nominating Committee: R. L. WEBSTER, H. B. HUNGERFORD, R. W. HARNED.

The President called attention to the Entomological Exhibit held in an adjoining room, composed as follows:

A Mantid with an Extra Leg-like Appendage. PHILIP P. CALVERT, University of Pennsylvania.

The Tracheal System of the *Lestes* (Odonata) Naiad. CLARENCE H. KENNEDY, Ohio State University.

The Wing-Venation of the Coleoptera. WILLIAM T. M. FORBES, Cornell University.

The Ox-Warbles and their Effects on Cattle. F. C. BISHOPP, United States Bureau of Entomology.

Adjournment.

SECOND SESSION.

A Joint Session with the Ecological Society of America was held in Room 32 of the Engineering Building on Tuesday, December 27, and was called to order at 2:00 P. M. under the Presidency of Dr. Stephen A. Forbes of the Ecological Society and Dr. J. M. Aldrich, of the Entomological Society. The attendance was from 120 to 150.

The following program was presented:

The Application of the Principles of Ecology to Practical Problems in Zoology and Entomology. V. E. SHELFORD, University of Illinois.

Hacker's Proposed New Method for Studying Distribution of Species. PHILIP P. CALVERT, University of Pennsylvania.

The Reciprocal Relations of Insects and Soil. JAMES W. McCULLOCH, Kansas State Agricultural College.

Some Observations on the Influence of Soil Temperature on White Grub Activities. JAMES W. McCULLOCH, Kansas State Agricultural College.

A Curious Relation Between a Midge and Mayfly. P. W. CLAASSEN, Cornell University.

Glandular Structure of the Abdominal Appendages of a Termite Guest. (*Spirachtha*). N. E. McINDOO, U. S. Bureau of Entomology.

A Week-end with *Odynerus dorsalis*. C. H. TURNER, St. Louis, Missouri.

Are Insect Galls "Deformities" and "Abnormalities?" B. W. WELLS, North Carolina State College.

The Life History of *Nomophila noctuella* in Illinois. W. P. FLINT, Illinois State Natural History Survey.

Observations on the Life History, Habits and Work of the Sorghum Worm (*Celoma sorghiella* Riley). L. HASEMAN, University of Missouri.

Life History of *Crambus laqueatellus*. GEORGE G. AINSLIE, U. S. Bureau of Entomology.

New Mosquito Records and Notes on the Habits of Certain Species from Central New York. ROBERT MATHESON and R. C. SHANNON, Cornell University.

BUSINESS SESSION.

The third session of the meeting (for the transaction of business) was held in Room 10 of the Medical Building on the forenoon of December 28 with an attendance of about 55.

The Report of the Executive Committee was made by the Secretary as follows:

REPORT OF EXECUTIVE COMMITTEE.

The only matter that was referred to the Executive Committee in the interim between annual meetings was the selection of Dr. Seymour Hadwen of the United States Biological Survey to give the Annual Address.

The Executive Committee met at 10:00 P. M., December 27th, in Convocation Hall, with the following members present: J. M. Aldrich, Arthur Gibson, C. L. Metcalf, Herbert Osborn, E. M. Walker, W. A. Riley, O. A. Johannsen.

Dr. W. M. Wheeler and Dr. E. M. Walker were elected members of the Editorial Board to succeed themselves and Frederick C. Muir to succeed Mr. J. G. Sanders, these terms to expire in 1924.

As committeemen on the Thomas Say Foundation, Mr. Wm. T. Davis was re-elected and Mr. Arthur Gibson was elected to succeed Dr. C. Gordon Hewitt, these terms to expire in 1924.

The following were elected Fellows of the Society: DR. S. J. HUNTER, University of Kansas, Lawrence, Kansas; and DR. J. M. SWAINE, Department of Agriculture, Ottawa, Canada.

The following were elected members of the Society:

WM. J. BAERG, Cornell University, Ithaca, New York.

FLOYD J. BRINLEY, Box 69, Riverton, New Jersey.

QUINTA CATTELL, Garrison-on-Hudson, New York.

STEWART C. CHANDLER, 402 W. Walnut Street, Carbondale, Illinois.

WALLACE COLMAN, 708 E. Seneca Street, Ithaca, New York.

CHARLES C. COMPTON, Box 12, Aurora, Illinois.

ANGELO M. COSTA-LIMA, Rua do Ouvidor, No. 116, Rio de Janeiro, Brazil.

RAYMOND B. COWLES, 409 Dryden Road, Ithaca, New York.

EUGENE M. CRAIGHEAD, Bureau of Plant Industry, Harrisburg, Pa.

CLIFFORD R. CUTRIGHT, Botany and Zoology Building, Ohio State University, Columbus, Ohio.

NORMA FORD, 96 Dunn Ave., Toronto, Ontario, Canada.

LLOYD VICTOR FRANCE, University Farm, St. Paul, Minnesota.

PAUL M. GILMER, 21 Nourse Street, St. Paul, Minnesota.

HENRY G. GOOD, Cornell University, Ithaca, New York.

FAY ERASTUS GUYTON, Box 411, Alabama Polytechnic Institute, Auburn, Alabama.

LAWRENCE LESTER HUBER, Dept. of Zoology and Entomology, Ohio State University, Columbus, Ohio.

HAROLD C. HALLOCK, 504 South Aurora St., Ithaca, New York.

ALBERT HARTZELL, Dept. of Zoology and Entomology, Iowa State College, Ames, Iowa.

ROBERT D. HARWOOD, Jacksonville, Illinois.

SADIE E. KEEN, Drawer J, Forest Grove, Oregon.

JEROME MCNEILL, Box 55, Thonotosassa, Florida.

EDITH W. MANK, 12 Reservoir Street, Lawrence, Mass.

HELEN G. MANK, 12 Reservoir Street, Lawrence, Mass.

ARTHUR C. MASON, U. S. Dept. of Agr., Box 491, Orlando, Florida.

AUGUST E. MILLER, Dept. of Zoology and Entomology, Ohio State University, Columbus, Ohio.

THEODORE B. MITCHELL, 221 W. Oregon Street, Raleigh, N. Carolina.

ELIZABETH MARRIOTT MOFFATT, 335 W. Wesley Street, Wheaton, Ill.

THEUNIS JOHANNES NAUDE, 1620 Neil Ave., Columbus, Ohio.

CLAUD R. NEISWANDER, 17 W. Norwich Ave., Columbus, Ohio.

ERNEST NIELSEN, care of C. E. Olsen, Box 72, West Nyack, New York.

E. F. PHILLIPS, Bureau of Entomology, Washington, D. C.

JOHANNES T. POTGIETER, 1620 Neil Ave., Columbus, Ohio.

THERON PALMER REMY, Box 225, College Station, Texas.

R. R. ROWLEY, Louisiana, Missouri.

ROBERT D. SPENCER, State Hospital, Ashland, Pa.

ORIN A. STEVENS, Agricultural College, North Dakota.

GEORGIA SWEET, Melbourne, Victoria, Australia.

FREEMAN R. SWIFT, Corcoran Manor, Mt. Vernon, N. Y.

RYOICHI TAKAHASHI, Agricultural Experiment Station, Taihoku, Formosa, Japan.

A. C. THOMAS, Bustleton, Pa.

MYRON T. TOWNSEND, 301 Nat. History Building, University of Illinois, Urbana, Illinois.

FRANCIS M. WADLEY, 126 S. Minneapolis Ave., Wichita, Kansas.

MORRIS N. WATT, St. John's Hill, Wanganui, New Zealand.

WALTER H. WELLHOUSE, Dept. Zoology and Entomology, Iowa State College, Ames, Iowa.

LUTHER S. WEST, Department of Entomology, Cornell University, Ithaca, New York.

GRACE WILEY, Chanute, Kansas.

HANS ZERNY, Natural History Museum, Vienna 1, Burgring 7, Austria.

Total new members, 47.

The Executive Committee directed the Secretary to credit the current account finally with the interest collected from permanent funds during 1920 and 1921, an amount totaling \$34.77, which has been carried tentatively in the current fund but credited also to the permanent fund. The permanent fund is therefore debited this amount from the total given in the treasurer's report below.

At the request of the Managing Editor of the ANNALS, Dr. C. H. Kennedy was appointed Assistant Managing Editor.

The report of the Secretary was presented as follows:

REPORT OF THE SECRETARY.

At the Chicago meeting of the Society a new Secretary-Treasurer was elected, necessitating the removal of the office and accounts from Washington to Columbus. This Secretary-Treasurer subsequently moved from Columbus to Urbana, again necessitating a change of address, the transfer of accounts, etc. The Secretary begs the indulgence of members for any inconvenience or annoyance that may have arisen from this *incertis sedis* of their official and trusts he may be able to manage the affairs entrusted to him in a much more efficient manner another year.

That the Society is in a healthy condition is evidenced in several ways. The number of titles on the program for the present session is more than twice the average number of papers presented for the past ten years. There are this year fifty titles including the annual address. The largest previous number the Secretary could find listed was thirty titles for the year 1913.

The membership including the newly elected members is 606. The corresponding figures for the past ten years are:

1911—391	1916—611
1912—410	1917—606
1913—439	1918—594
1914—551	1919—601
1915—578	1920—567

Financially it may be said that the total receipts for the year are in excess of those of any year in our history. Even after subtracting the large balance remaining from last year, the income during the year is within a few dollars of the largest amount ever received by the treasury in a single year (1917). The large balance of 1920 was due to two causes: first, the unusual number of issues of the ANNALS that were not paid for when the books were closed; and, secondly, the unusual number of members (281) who had paid in advance for the following year, both factors operating to reduce our balance this year. Due to the greater cost of printing, engraving, clerical help, etc., the expenses of the Society have been very high. Five issues of the ANNALS were paid for during the year, this bill alone amounting to \$1,854.31. We still owe printing and engraving bills totalling \$80.25, and for the entire fourteenth volume of the ANNALS. Estimating the cost of this 1921 volume at approximately the same as that for 1920 it will be seen that the balance in the current fund is about \$350 short of our liabilities. In this connection it is well to keep in mind that our present balance includes about \$450 of dues already paid for 1922 and subsequent years. The amount that may be expected from the dues of members during the coming year for the coming year, hardly exceeds \$750. Of course, the Society has the permanent fund (\$840.00) which would more than meet our liabilities. The Secretary does not wish to imply that we are in an unusual financial condition, but wishes the members to be informed that we are practically running behind a year, to cover which liability we have the permanent fund.

In spite of the evidences of health and prosperity of the Society the Secretary does not believe that we are living up to our full opportunity for service to Entomology in America. The membership is not what it should be by at least two or

three hundred members. Between annual meetings the only realization most of us have of any connection with the Entomological Society of America is the quarterly receipt of the ANNALS and an occasional statement of annual dues from the Secretary. The ANNALS is a credit to our Society and the annual program is always a splendid one. But surely there must be other ways in which an organization of approximately 600 persons, all vitally interested in one profession, should, and can, make itself felt during the year.

As a step in preparation for any larger service that the Society may deem it expedient to undertake, the Secretary has taken the initiative in preparing blank, index, information cards, which were mailed to all members with the preliminary announcement of this meeting. The annual statement of dues appears on one side; on the reverse the secretary asked for the following information: (1) full name and correct address; (2) official title, firm or other institution with which the member is connected; (3) the subject in which the member has published papers; (4) projects on which the member has work in progress; (5) taxonomic groups in which the member is interested and in which he is willing to make determinations; (6) and, finally, the degrees held by the member. There is also space provided for a record of the date of recommendation to membership, date of election as a member, as a fellow, and as an honorary fellow, and for a record of memberships terminated by death, by resignation or failure to pay the annual dues.

These cards should serve several purposes. They will serve as the official mailing list of the Secretary's office. The very roving nature of most Entomologists makes it impracticable to keep the members revised address on the same sheet with his financial statement; since the latter must be permanently filed and in a few years becomes so checkered with alterations and revisions of the address as to be unreadable. With the card system a new card may be filed with each change of address and the old one discarded.

If the members will fill out the cards faithfully they will serve as a splendid basis for selection of persons for symposia, public addresses, etc. And if the Society desires to make use of the Secretary's office in such a way, they would furnish a basis for helping amateurs who desire identification in various groups, for bringing together specialists working on similar problems and as an indication of members who might be available to undertake a particular type of work.

Unhappily in spite of the admonition "See the other side" that appears at the bottom of the card, many members have apparently noticed only the statement of their account and have failed to see the information blank on the reverse side of the card. Others have for various reasons probably been reluctant to fill in the card. The Secretary has no desire to press the matter but is firmly convinced in his own mind that his office will be able to serve the Society better if the information asked for appears beneath your name and address. A supply of these cards is available if members who have not sent them in, care to fill them out.

Some of the avowed objects of the Society, as expressed in the constitution and at other times, are: to promote the Science of Entomology in all its branches; to keep amateurs in touch with professional entomologists and with a central body; to build up and foster local societies; and to give the study of entomology that standing which its importance in relation to all forms of human activity warrants and demands.

Let us ask ourselves seriously whether as a society we are living up to the high ideals avowed at the foundation of our organization. The Secretary would like to see some of the splendid enthusiasm and active zeal evinced during the convocation week pervade the membership of our organization during the other fifty-one weeks of the year so that the Society may make itself felt as a power for the advancement of Entomology as a profession, and will welcome suggestions from any member of ways in which he may serve to this end.

At the Baltimore meeting of the Society in 1918 a motion was passed that each annual program should have one session devoted to a symposium on some general entomological topic. The Executive Committee has not provided a symposium this year, for two reasons. Because of the loss of Monday from our usual convocation week and because of the demand for two joint sessions it appeared that the time for the reading of papers was likely to be curtailed. Especially after it was found advisable to schedule the public address during one of the day-time sessions, it was evident that no time was available for a symposium. Again the officers did not know what to suggest for a symposium or whom to ask to take this part of the program.

What do the members desire shall be done about a symposium? If a symposium is to be held (and the Secretary is heartily in favor of the idea) what subjects will the members like to hear discussed? The index cards of members should be of great aid in the arrangements for such a symposium because they will indicate the major interests of the members. If you vote to continue the symposium (and I hope you will) please let me beg of you not to refuse to take part in the discussion if you are asked to do so. The Secretary believes that the subject for the symposium should be selected annually one year in advance by vote of the members at the annual meeting from subjects nominated through the Secretary or Executive Committee.

The Executive Committee has learned with sorrow of the death of our Honorary Fellow, Professor Charles Henry Fernald, on February 22, 1921, and of the following members: Edward G. Love in 1919, and Dr. William A. Nason, date unknown. Total—3.

The following members have resigned and their membership is hereby terminated: John Wendell Bailey, Myron H. Swenk, B. P. Young, Philip A. Munz, Daniel M. Brumfiel. Total—5.

Twenty-six members whose dues are unpaid for more than the allotted two years and who have been notified of the rule are retained for the present until they have had one more opportunity to remain in good standing. Such delinquent members cost the Society practically nothing since the ANNALS is not sent to them. Total losses in membership—8.

Forty-seven members and two fellows were elected by the Executive Committee on December 27, 1921.

The actual membership reported December 21, 1920 (See <i>Annals</i> , Vol. XIV, p. 41) was.....	567
New members 1921.....	47
Loss of Members 1921.....	8
Net Gain 1921.....	— 39
Actual Present Membership.....	606

On December 24th, when the records for 1921 were closed the membership of the Society was in the following condition with respect to the payment of dues:

Members and Fellows paid for 1921.....	1
Members and Fellows paid for 1923.....	3
Members and Fellows paid for 1922.....	222
Members and Fellows paid for 1921.....	219
Members and Fellows not paid for 1921.....	52
Members and Fellows not paid for 1920 and 1921.....	18
Members and Fellows not paid for 1919, 1920 and 1921.....	26
New Members.....	47
Life Members.....	13
Honorary Fellows.....	5
Total Membership.....	606

One life membership was received during the year from Mr. W. M. Giffard.

Respectfully submitted,

C. L. METCALF, *Secretary*.

The report of the Treasurer was next presented:

TREASURER'S REPORT.

(December 24, 1921)

CURRENT FUNDS.

Receipts.

Balance, December 21, 1920 (See Annals, Vol. XIV, p. 41).....	\$1,681.64
From Annual Dues of Members.....	890.53
From Managing Editor of the Annals.....	787.86
One Life Membership.....	50.00
Interest.....	29.91
Exchange.....	.24
Check refused by bank, to balance.....	6.00
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	\$3,446.18

Expenditures.

Annals for December, 1919.....	\$ 345.75
Annals for March, 1920.....	406.00
Annals for June, 1920.....	413.50
Annals for September, 1920.....	298.50
Annals for December, 1920.....	327.75
Postage, Envelopes, etc., for Annals.....	62.81
Engraving for Annals.....	221.86
Stamps and Stamped Envelopes.....	24.79
Clerical and Stenographic Assistance.....	34.10
Printing.....	115.88
Office Supplies.....	11.97
Express.....	6.09
Exchange.....	1.78
Telegram.....	.78
Safety Deposit Box, one-half year.....	1.50
Check refused by bank, to balance.....	6.00
Cash on deposit, First National Bank, Champaign, Ill., December 24, 1921.....	1,167.12
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	\$3,446.18

LIABILITIES.

The Society owes the publishers of the ANNALS for the four issues of 1921. Also for engravings for December, 1921, ANNALS, \$56.25. Also for printing the program, \$24.00.

CONDITION OF PERMANENT FUNDS.

On hand last report (Annals, Vol. XIV, p. 41).....	\$795.09
Appreciation of nine War Savings Stamps.....	1.08
One life Membership, W. M. Giffard, carried in current account.....	50.00
From Interest on bonds, in current account.....	29.91
	\$876.08
Less interest accrued during 1920 and 1921, now vested in the current fund..	34.77
Actual present balance.....	\$841.31

SECURITIES.

The securities held remain exactly as recorded in the Treasurer's report for last year (See ANNALS, Vol. XIV, p. 41) except that Fourth Liberty Loan Temporary Bonds, Nos. 490,434, 4,714,709 and 6,951,394 have been converted to Nos. H. 05,321,828; C. 04,921,513; and D. 04,921,514. These securities are held in safety deposit box of the First National Bank, Champaign, Illinois.

By direction of the Executive Committee the Life Membership fee of W. M. Giffard (\$50.00) and other such fees as received will be invested in bonds.

Respectfully submitted,

C. L. METCALF, *Treasurer.*

On motion the reports of the Secretary-Treasurer were accepted and the financial parts thereof referred to the Auditing Committee.

On motion, the Society selected by *viva voce* vote, the following subject for the symposium at the 1922, Boston meeting:

“The Adaptations of Insects to Special Environments.”

The following report was next presented:

REPORT OF MANAGING EDITOR.

Our publication for the year 1921 has apparently suffered no more from the prevailing difficulty in regard to printing than some of those of our sister Societies. In some respects we have, I think, gained ground and can report a fair prospect for the coming year. The income of the office has amounted to \$863.92, which is a larger amount than has been received in any previous year, but it should be noted that several items have been collected which have come over from last year, and that we can hardly expect as large an amount for the coming year. It may be mentioned, however, that a considerable item, \$211.85, represents sale of back volumes, and with resumption of scientific activities throughout the world, I think we can count on the sale of an increased number of back volumes which will help out in future publication. It may be stated also that back numbers and subscriptions have been entered from such widely separated localities as Japan, India, Australia, New Zealand, Ceylon, and Germany, which apparently marks

a recognition of the importance of our journal. There are still many institutions in foreign lands which must ultimately find it desirable to have our publication in their libraries.

The receipts and expenditures may be summarized as follows:

<i>Receipts.</i>	
Subscriptions.....	\$289.50
Sale of back numbers.....	211.85
Sale of reprints.....	166.69
Contributions for engraving.....	195.88
	\$863.92
<i>Disbursements.</i>	
Stamps, postal deposits and express.....	\$ 29.10
Stenographic and clerical assistance.....	46.96
Balance paid to Treasurer.....	787.86
	\$863.92

For the coming year we have a number of excellent papers in hand, and apparently our only difficulty in the matter of material lies in the lack of funds with which to publish all the papers that are available. As in previous years, we have received generous contributions from authors toward the expense of engraving. Otherwise, a number of these papers would have had to be refused, or their printing much delayed.

I wish to recommend the appointment of Dr. C. H. Kennedy as assistant managing editor, his name to appear on the front page of cover, in connection with the Editorial Board. Dr. Kennedy has kindly offered to assist in the details of handling the journal and with such assistance I believe it will be possible to continue the general management of the ANNALS, if this is desired by the Society.

Respectfully submitted,

HERBERT OSBORN, *Managing Editor.*

On motion, this report was accepted and referred to the Committee on Auditing.

The next item of business was the following report:

REPORT OF COMMITTEE ON NATIONAL MUSEUM.

Your Committee begs leave to report that during the past year there has seemed to be no particular opening for activities in addition to the measures which were inaugurated last year. The conditions with reference to the collections of insects have not been changed and it is desirable that every effort should be made to secure additional space suitable for the development of the collections, and to provide for additional curatorial service as rapidly as possible. The collections are increasing in quantity and value, and there should be every possible encouragement to entomologists throughout the country to deposit material that may be of service in their extension. Especially is it desirable that type material should be represented in this museum as extensively as possible.

The museum has, during the past year, utilized the services of certain specialists in the rearrangement and the study of certain groups, and this policy would seem well worth continuation. There certainly should be a more general interest throughout the country in the growth of the national collections, and there should

be a national pride in making them as extensive and useful as possible. It is very much to be hoped that in the near future it may be possible to secure adequate room for expansion, and statements concerning this need may very properly be made by individuals to any official who may be in a position to assist in this direction.

Respectfully submitted,

HERBERT OSBORN, *Chairman*,
WM. BARNES,
WM. M. WHEELER,
JAS. G. NEEDHAM,
C. W. JOHNSON.

On motion, the report was accepted and filed.

The following report was read and referred to the Auditing Committee:

REPORT OF THE TREASURER OF THE THOMAS SAY FOUNDATION.

Receipts for 1921.

Balance on Hand, January 1st, 1921.....	\$287.41
One Subscriber, \$3.50.....	\$ 3.50
Five Subscribers, \$3.00.....	15.00
	18.50
Interest on \$200.00 (to September 15).....	8.50
Total Receipts, 1921.....	\$314.41

Expenditures for 1921.

July 11th, Binding 50 volumes (Vol. 1)—Lafayette Printing Company.....	\$ 25.00
Express on above to Washington, D. C.....	2.92
Postage on six copies.....	.76
	28.68
Total Expenditures, 1921.....	\$ 28.68
Cash on hand to balance.....	285.73
Total.....	\$314.41
Balance on hand, January 1, 1922.....	285.73

There are outstanding obligations to the original subscribers of \$260.00, leaving a net balance of \$25.73 to the credit of Volume I if the original grant of the Society of \$50.00 is neglected, or a deficit of \$23.39 if it is considered.

Respectfully submitted,

E. D. BALL, *Treasurer*.

The Society then heard the following report:

REPORT OF THE AUDITING COMMITTEE.

Your Auditing Committee, after examination of the accounts submitted, begs leave to report:

1. That the accounts of the Managing Editor of the ANNALS from December 21, 1920, to December 24, 1921, have been audited and found correct.

2. That accounts of Secretary-Treasurer of the Entomological Society from December 21, 1920, to December 24, 1921, have been audited and found correct, with the exception of errors in computations to the amount of \$1.50 in favor of the Society.

3. The report of the Treasurer of the Thomas Say Foundation has been received and is recommended to be placed on file.

4. Your Committee, in the interests of the officers of the Society and for the information of future Auditing Committees recommends that the Reports of the Auditing Committee from year to year be made a part of the permanent records of the Society.

Respectfully submitted,

S. J. HUNTER,

NORMAN CRIDDLE.

On motion, this report was accepted.

The Committee on Nomenclature presented no formal report but the following statement from one of its members was read by the President:

THE PUBLICATION OF INADMISSIBLE SPECIFIC NAMES.

It has been customary to allow very great latitude in the matter of specific names, but obviously there must be some limits beyond which names proposed are to be rejected as not in conformity with the rules. We would call attention to one objectionable practise, which we think should not be permitted. In 1906 Kohl published an excellent work on the Hymenoptera of Sokotra in which he published two species as *Eucera W. F. Kirbyi* and *Megachile W. F. Kirbyi*. During the present year, Strand has published a species *Andrena W. A. Schulzi* from Crete. Frieso, in citing Kohl's *Megachile*, wrote it *M. Kirbyi*. These names may be considered to present a certain analogy with those of *Coccinella 22-punctata* L., *C. 18-guttata* L. etc., but these latter can be latinized, and are so treated in Leng's catalogue. An attempt to latinize in full the above-cited names of Kohl and Strand would produce appellations which we should hesitate to print. No doubt Frieso was correct in writing *M. Kirbyi*, simply. The question arises, however, as to the proper authority of the name. If *M. W. F. Kirbyi* is to be rejected as contrary to the rules, it has no better standing than a polynomial and in that case dates, from the standpoint of nomenclature, from Frieso's publication, and he stands as the author.

In this country, in 1894. Dyar published a description of a sawfly as *Nematus hudsonii magnus*, not intending to indicate a subspecies. Marlatt, in 1896, called the species *Pteronus hudsonii* Dyar. Dyar's name, as it stood, was clearly a polynomial. We venture to suggest that the above criticised names should be rejected as contrary to the rules and rejected in toto.

We would also call attention to the apparently increasing frequency of badly constructed names, which cannot be rejected, but remain to offend subsequent generations of those who have any appreciation of latin or greek usage, or even of elegance in language. Would it serve a useful purpose to compile annually and present at the meeting of the Society a list of the worst of these, as a warning for the future?

(Signed) T. D. A. COCKERELL.

The Committee on Resolutions reported as follows:

The Committee on Resolutions has the honor to report as follows:

(1) We desire to call attention to the faithful and efficient services of our Executive Committee, to the courtesies extended to us by the University of Toronto and the Royal Canadian Institute and to the excellent arrangements made by the Local Committee of the Association and to express our sincere thanks for their services.

(2) WHEREAS, The Science of Entomology has suffered the loss of one of its pioneer workers and this Society one of its most valued members and Honorary Fellows in the recent death of Prof. C. H. Fernald; therefore

Be it Resolved, That we take this occasion to express our deep grief over his loss; and be it further

Resolved, That we extend our sympathies to his family.

(Signed) E. MELVILLE DU PORTE,
H. C. HUCKETT,
W. P. FLINT.

The Nominating Committee reported as follows:

REPORT OF NOMINATING COMMITTEE.

Your Committee on Nominations has to report as follows:

For President—ARTHUR GIBSON.

For First Vice-President—W. A. RILEY.

For Second Vice-President—R. A. COOLEY.

For Secretary-Treasurer—C. L. METCALF.

For Members of the Executive Committee—J. M. ALDRICH, WM. T. DAVIS,
E. M. WALKER, O. A. JOHANSEN.

(Signed) R. W. HARNED,
H. B. HUNGERFORD,
R. L. WEBSTER.

On motion the report was accepted and the Secretary instructed to cast the unanimous ballot of the Society for these officers; which, being done, they were declared elected.

The Secretary presented the following resolutions which were adopted by a conference called by the Division of Biology and Agriculture of the National Research Council held in the King Edward Hotel on the afternoon of December 27th:

Resolved, (1) That it is the sense of this conference that an inter-society conference should be raised to study and report upon the feasibility of federation of the biological societies and to develop plans for the said federation.

Resolved, (2) That for the purpose of effecting such an organization, each society, and Sections F. and G. of the American Association for the Advancement of Science, be requested to designate its President and Secretary as members of an intersociety council which shall be authorized (a) to deal with all matters of common interest such as the correlation of programs, studying problems of pub-

lication, the reorganization of bibliographies, etc., that are consistent with the existing regulations of constituent societies; and (b) to draw up proposals for a Constitution and By-laws of a federation of the societies in question, and to present them for action at the next annual meeting.

Although no formal action was taken, it was understood that the conference raised by the adhering societies should be empowered to invite other organizations to join it later.

On motion the Society approved these resolutions and designated its President and Secretary to represent it in this Council.

It was moved by W. A. Riley that the matter of adjustment of the \$50.00 loaned to the Thomas Say Foundation be referred to the Executive Committee with power to act; but with the expression of opinion on the part of the Society that the same should be given to the Thomas Say Foundation. The motion carried and the matter was so referred.

It was moved by J. Chester Bradley that the Executive Committee be requested to extend an invitation to leading Entomologists of Central and South America to become members in order to make the Society more fully representative of the Western Hemisphere.

The motion carried and the President, the Secretary and Doctor Bradley were designated a committee to extend these invitations.

The following Amendment to the Constitution was proposed and is hereby recorded for consideration at the next annual meeting:

ARTICLE V, SECTION 4. ELECTION OF HONORARY FELLOWS.—All nominations for Honorary Fellows shall be made in the manner prescribed for the nomination of Fellows, the nominations being presented to the Executive Committee, who shall mail the ballots to the Fellows. Election shall be by mail ballot of the Fellows of the Society, a two-thirds vote of all the Fellows being required for election.

To be amended to read: Honorary Fellows may be nominated by unanimous vote of the members of the Executive Committee present at an annual meeting. The nominee shall be voted on by the members by ballot and must receive four-fifths of all ballots cast to be elected.

Not more than one Honorary Fellow may be elected in three successive annual meetings.

ARTICLE VI. MEETINGS.—An Annual Meeting shall be held in conjunction with the annual meeting of the American Association for the Advancement of Science and at such time and place as the officers may elect.

To be amended to read: An Annual Meeting shall be held in affiliation with the American Association for the Advancement of Science or at such time and place as the Executive Committee may select.

There being no further business, the session adjourned.

FOURTH SESSION.

The Society was called to order at 2:00 P. M., December 28th, in Room 10 of the Medical Building. President Aldrich introduced Dr. Seymour Hadwen, of the United States Biological Survey, who presented the Annual Address on the Subject, "Northern Oestridæ."

Dr. Aldrich then introduced Dr. C. J. S. Bethune, an Honorary Fellow of the Society and long-time Editor of the Canadian Entomologist, who was very warmly greeted by the audience.

FIFTH SESSION.

The final session of the 1921 meetings was a joint session with the Entomological Society of Ontario, at which Mr. Arthur Gibson, President of the Entomological Society of Ontario and President-elect of the Entomological Society of America presided. The Session met at 3:00 P. M., December 28th, in Room 10 of the Medical Building, and the following papers were presented:

Algonquin Days. F. J. A. MORRIS, Peterborough, Ontario.

Ecdysis in *Tmetocera ocellana*. S. W. FROST, Arendtsville, Pa.

Cocoon Spinning by Species of *Bucculatrix*. O. A. JOHANNSEN, Cornell University.

The Ventral Prothoracic Gland of the Red-humped Apple Caterpillar (*Schizura concinna*). J. D. DETWILER, Western University.

Are There Two Species of the Oyster-shell Scale? GRACE H. GRISWOLD, Cornell University.

The Phylogeny of the Gall Mites and a New Classification of the Suborder Prostigmata of the Order Acarina. H. E. EWING, United States National Museum.

An Extreme Case of Delayed Fall Emergence of Hessian Fly (*Phytophaga destructor*). W. H. LARRIMER, United States Bureau of Entomology.

Importance of Insects in the Food of the Brook Trout. W. A. CLEMENS, University of Toronto.

The Effect of Vitamines on the Growth of *Ephestia kuehniella* in Wheat Flour. CHARLES H. RICHARDSON, U. S. Bureau of Entomology.

Adjournment.